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04/13/2006

Zoser B. Salama

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EXAMINER

MAHYERA, TRISTAN J

ART UNIT

PAPER NUMBER

1615

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,399	Applicant(s) SALAMA, ZOSER B.	
	Examiner TRISTAN J. MAHYERA	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) 1,2 and 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/17/2006, 5/07/2007, 6/19/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II, claims 4-13, in the reply filed on 6/19/2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The requirement is still deemed proper and is therefore made FINAL.

Status of Claims

Claims 1, 2, 4-13 and 15-22 are pending. Claims 1, 2 and 15-22 are withdrawn pursuant to 37 CFR 1.142(b), as being drawn to the non-elected invention. Claims 4-13 are examined on the merits.

Priority

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(a-d) is acknowledged.

Specification

The disclosure is objected to because of the following informalities: The use of the trademark VASELINE has been noted in this application. A trademark should be capitalized wherever one appears and be accompanied by the generic terminology.

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Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks. Appropriate correction is required.

Claim Objections

Claim 7 is objected to because of the following informalities: Claim 7 is identical to claim 6. Appropriate correction is required.

Claim Rejections - 35 USC § 112 2nd Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 9 contain the trademark/trade name VASELINE. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or

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trade name does not identify or describe the goods associated with the trademark or trade name.

Regarding claim 5, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation "pharmaceutically acceptable vehicles", and the claim also recites "especially... sisosomes, liposomes and/or nanocapsules", which is the narrower statement of the range/limitation.

Claim 10 uses the term "chloroaerosol". It is unclear what chloroaerosol is – please clarify. There is no definition in the specification as to the structure of chloroaerosol and no indication of such a term in the general art. The term for purposes of this examination will be interpreted as any aerosol i.e. fine particle, that contains a chlorine atom.

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Claims 8 and 9 use the term "cetyl stearyl alcohol", the Examiner believes this should be cetyl OR stearyl alcohol and is searched as interpreted. It is improper and indefinite to name an alcohol as "cetyl stearyl" because it is unclear if the alcohol actually consists of cetyl (C16) and stearyl (C18) which would be an alcohol consisting of the total carbons of both cetyl and stearyl or is as stated actually two separate alcohols.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over PRESNOV et al. ("The anti tumor activity of oxoplatinum", NEOPLASMA, 32, 1, 1985 pp73-83, see PTO-1449) in view of AREFYEVA et al., "Antitumor effectiveness and nephrotoxicity of oxoplatinum" VOPROSY ONKOLOGII. USSR 1990, vol. 36, no. 3, 1990, pp 331-334, see PTO-1449).

PRESNOV teaches cis-diammoniumdichloro-dihydroxoplatinum(IV) (cis-oxoplatin) in a solution for infusion/injection where the solution comprises in addition to cis-oxoplatin an aqueous saline solution and is administered intraperitoneally. See p74, Materials and methods. The amount of cis-oxoplatin in a given dosage varied over a large range, with specific examples of 15 -25mg/kg in Table 1, up to 80mg/kg in Table 3 and 10-90mg/kg in Table 4.

PRESNOV does not explicitly teach the use of mannitol or the ratio.

AREFYEVA teaches injectable cis-oxoplatin that includes the use of mannitol as a known diuretic that did not interfere with cis-oxoplatin activity against tumors, but assured less pronounced structural disorders in the kidney as compared to cis-oxoplatin alone. See p334 Abstract.

Furthermore, the ratio of cis-oxoplatin:mannitol:water in 0.1 to 7: 5 to 40: 1 to 10 is not explicitly taught, however, it is the position of the Examiner that it would have

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been obvious to one of ordinary skill in the art at the time the invention was made to determine suitable percentages and ratios through routine or manipulative experimentation to obtain the best possible results, as these are variable parameters attainable within the art.

Moreover, generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456; 105 USPQ 233, 235 (CCPA 1955). Applicants have not demonstrated any unexpected or unusual results, which accrue from the instant percentage ranges.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make a pharmaceutical agent comprising cis-oxoplatin and mannitol in an aqueous solution for injection, as taught by PRESNOV in view of AREFYEVA. One of ordinary skill in the art at the time the invention was made would have been motivated to combine these elements into a single composition because of the beneficial effects of mannitol as a known diuretic that would not interfere with cis-oxoplatin activity against tumors, but assures less pronounced structural disorders in the kidney as compared to cis-oxoplatin alone, as taught by AREFYEVA. Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success in practicing the instantly claimed invention.

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over PRESNOV in view of BLASE et al. (US 5,272,137 see PTO-892) and in view of MADISON et al. (US 2004/0001801 see PTO-892).

PRESNOV teaches cis-diammoniumdichloro-dihydroxoplatinum(IV) (cis-oxoplatin) in a solution for infusion/injection where the solution comprises in addition to cis-oxoplatin an aqueous saline solution and is administered intraperitoneally, as taught above.

PRESNOV does not explicitly teach the use of benzyl alcohol, polysorbate 80 and a 70% sorbitol solution.

BLASE teaches the use of a sorbitol solution in the preparation of pharmaceutical suspensions. The sorbitol solution contains 70% sorbitol. See e.g. col. 6 line 68 to col 7 line 1 and claim 9. The sorbitol is used as a source of sugar and/or sweetener. See e.g. col. 6 lines 60-61.

MADISON teaches the use of polysorbate 80 and benzyl alcohol in suspensions or injections. Benzyl alcohol is taught as an antimicrobial agent and polysorbate 80 as a suspending and dispersing agent. See e.g. p[1205]. MADISON teaches the active can be cisplatin a derivative of cis-oxoplatin. See e.g. claim 16 and 76.

The exact amount of benzyl alcohol (9mg), polysorbate 80 (2mg), sorbitol solution (650mg) and cis-oxoplatin (5g) in an aqueous solution in claim 12 can be achieved through routine or manipulative experimentation to obtain the best possible results, as these are variable parameters attainable within the art, as stated above.

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make a pharmaceutical agent comprising benzyl alcohol (9mg), polysorbate 80 (2mg), sorbitol solution (650mg) and cis-oxoplatin (5g) in an aqueous solution, as taught by PRESNOV in view of BLASE and in view of MADISON. One of ordinary skill in the art at the time the invention was made would have been motivated to combine these elements into a single composition because of the beneficial effects of benzyl alcohol is taught as an antimicrobial agent and polysorbate 80 as a suspending and dispersing agent is taught by MADISON and sorbitol is commonly used in suspensions as a sweetener or sugar source, as taught by BLASE. Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success in practicing the instantly claimed invention because MADISON teaches the therapeutic agent as cisplatin a derivative of cis-oxoplatin.

Claims 4-6, 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over PRESNOV in view of MADISON et al. (US 2004/0001801 see PTO-892).

PRESNOV teaches cis-diammoniumdichloro-dihydroxoplatinum(IV) (cis-oxoplatin) for administration where a solution comprises in addition to cis-oxoplatin in an aqueous saline solution and administered intraperitoneally, as taught above.

PRESNOV does not explicitly teach a capsule, gel, suppository, infusion or tablet and excipients.

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MADISON teaches that a capsule, gel, suppository, infusion and tablet are all well known in the art. See e.g. p[1216] and p[1222]: instant claims 5,6,10-13. Silicon dioxide and mannitol are taught as binders (see p[1188]), magnesium stearate is taught as a lubricant in solid dosage forms (see p[1188]), cellulose derivatives are taught as an excipients (see p[1182]) specifically hydroxyethylcellulose as a film (see p[1188]), sodium hydroxide for pH adjustment (see p[1205]), sodium hydrogen phosphate dehydrate (see p[0216]), benzyl alcohol as an antimicrobial agent (see p[1178 and 1205]) and polysorbate 80 as an emulsifying agent (see p[1188]). Fine particles containing chlorine are sodium chloride (see e.g. p[1205]).

As stated above, the art does not teach the exact weight of each component in the pharmaceutical agent, however, as each of these components is well known in the art for use in pharmaceutical compositions for specific purposes, it is well within the skill of an ordinary person in the art at the time of the invention to determine the optimum ratio, dosage and delivery means. Furthermore, the applicant has not shown any criticality in these exact amounts, for example, the 50mg silicon dioxide, 50mg of mannitol and 50mg of cis-oxoplatin in claim 6 is a dosage and excipient ratio where no reasoning is given as to why it is critical to have such an exact concentration, in other words, no reason is given why other concentration would not accomplish the same objective. The same reasoning applies to the concentrations of claims 5 and 10-13.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make a pharmaceutical agent comprising cis-oxoplatin in a capsule, gel, suppository, solution, and tablet with excipients as taught by PRESNOV in

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view of MADISON. One of ordinary skill in the art at the time the invention was made would have been motivated to combine cis-oxoplatin and the excipients into a single composition because of the beneficial effects of each excipients, specifically, silicon dioxide and mannitol are taught as binders (see p[1188]), magnesium stearate is taught as a lubricant in solid dosage forms (see p[1188]), cellulose derivatives are taught as an excipients (see p[1182]) specifically hydroxyethylcellulose as a film (see p[1188]), sodium hydroxide for pH adjustment (see p[1205]), sodium hydrogen phosphate dehydrate (see p[0216]), benzyl alcohol as an antimicrobial agent (see p[1178 and 1205]) and polysorbate 80 as an emulsifying agent (see p[1188]) in MADISON. Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success in practicing the instantly claimed invention because MADISON teaches the therapeutic agent as cisplatin a derivative of cis-oxoplatin.

Claims 4, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over PRESNOV in view of MADISON et al. (US 2004/0001801 see PTO-892) and in view of FRANKE et al. (US 6,534,070 see PTO-892) and in view of KUMAR et al. (US 2003/0064494 see PTO-892)

PRESNOV teaches cis-diammoniumdichloro-dihydroxoplatinum(IV) (cis-oxoplatin) for administration where a solution comprises in addition to cis-oxoplatin in an aqueous saline solution and administered intraperitoneally, as taught above.

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PRESNOV does not explicitly teach a capsule, gel, suppository, infusion or tablet and excipients.

MADISON teaches that a capsule, ointments, creams and tablets are all well known in the art, as stated above. See e.g. p[1216] and p[1222]. MADISON further teaches propylene glycol as a water miscible carrier (p[1188]), benzyl alcohol as an antimicrobial (see p[1205]), glycerol as carrier in emulsions (see p[1201]) and sorbitol as an antioxidant (see p[1197]).

KUMAR teaches cosmetic and pharmaceutical ointments and creams that contain petrolatum (i.e. generic VASELINE) (see e.g. claim 56) as a commercially available emulsion, isopropyl palmitate as a synthetic oil and cetyl or stearyl alcohol as the fatty alcohol component (see claims 31 and 33): instant claims 8 and 9. These components are thus shown as well known in the art for use in creams and ointments.

FRANKE teaches the use of polysorbates, specifically macrogol stearate 1000 in combination with propylene glycol, and water and salts for administration topically as a hydrogel. See e.g. col 1 lines 28-36: instant claims 8 and 9.

As stated above, the art does not teach the exact weight of each component in the pharmaceutical agent, however, as each of these components is well known in the art for use in pharmaceutical compositions for specific purposes, it is well within the skill of an ordinary person in the art at the time of the invention to determine the optimum ratio, dosage and delivery means. Furthermore, the applicant has not shown any criticality in these exact amounts, for example, the 50mg sorbitol, 40mg of glycerol, 50mg of cis-oxoplatin, 20mg of isopropyl palmitate, 100mg of cetyl or stearyl alcohol

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and 25,g of macrogol stearate 1000 in claim 8 is a dosage and excipient ratio where no reasoning is given as to why it is critical to have such an exact concentration, in other words, no reason is given why other concentration would not accomplish the same objective. The same reasoning applies to the concentrations of claim 9.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make a pharmaceutical agent comprising cis-oxoplatin in a capsule, gel, suppository, solution, and tablet with excipients as taught by PRESNOV in view of MADISON, KUMAR, and FRANKE. One of ordinary skill in the art at the time the invention was made would have been motivated to combine cis-oxoplatin and the excipients into a single composition because of the beneficial effects of each excipients, specifically, propylene glycol as a water miscible carrier (p[1188]), benzyl alcohol as an antimicrobial (see p[1205]), glycerol as carrier in emulsions (see p[1201]) and sorbitol as an antioxidant (see p[1197]) in MADISON, petrolatum (i.e. generic VASELINE) (see e.g. claim 56) as a commercially available emulsion, isopropyl palmitate as a synthetic oil and cetyl or stearyl alcohol as the fatty alcohol component in KUMAR and macrogol stearate 1000 in combination with propylene glycol, and water and salts for administration topically as a hydrogel in FRANKE. Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success in practicing the instantly claimed invention.

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Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRISTAN J. MAHYERA whose telephone number is 571-270-1562. The examiner can normally be reached on Monday through Thursday 9am-7pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL P. WOODWARD can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tristan J Mahyera/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615